

ABSTRACT OF THE DISCLOSURE

In a nonvolatile semiconductor memory device, an interpoly dielectric film composed of a nitrogen-introduced CVD SiO₂ film is used as the gate oxide films of MOS transistors in a low voltage region of a peripheral circuit region. Gate oxide films of MOS transistors in a high voltage region of the peripheral circuit region are composed of a laminate of the SiO₂ film and a nitrogen-introduced CVD SiO₂ film. This arrangement improves transistor characteristics and reliability of gate oxide films of the peripheral circuit MOS transistors. It is also possible to realize miniaturization and low voltage operation. Further, simplification of the production process is made possible.